

§ 101.515 Emissions and bandwidth.

Different types of emissions may be authorized if the applicant describes fully the modulation and bandwidth desired, and demonstrates that the bandwidth desired is no wider than needed to provide the intended service. In no event, however, may the necessary or occupied bandwidth exceed the specified channel width of the assigned pair.

§ 101.517 Antennas.

(a) Transmitting antennas may be omnidirectional or directional, consistent with coverage and interference requirements.

(b) The use of horizontal or vertical plane wave polarization, or right hand or left hand rotating elliptical polarization must be used to minimize harmful interference between stations.

(c) Directive antennas must be used at all DEMS User Stations and may be elevated no higher than necessary to assure adequate service. User antenna heights may not exceed the height criteria of Part 17 of this chapter, unless authorization for use of a specific maximum antenna height (above ground and above sea level) for each location has been obtained from the Commission prior to the erection of the antenna. Requests for such authorization must show the inclusive dates of the proposed operation. (See Part 17 of this chapter concerning the construction, marking and lighting of antenna structures).

§ 101.519 Interconnection.

(a) All DEMS licensees must make available to the public all information necessary to allow the manufacture of user equipment that will be compatible with the licensee's network.

(b) All DEMS licensees must make available to the public all information necessary to allow interconnection of DEMS networks.

§ 101.521 Spectrum utilization.

All applicants for DEMS frequencies must submit as part of the original application a detailed plan indicating how the bandwidth requested will be utilized. In particular the application must contain detailed descriptions of the modulation method, the channel time sharing method, any error detecting and/or correcting codes, any spatial frequency reuse system and the total data throughput capacity in each of the links in the system. Further, the application must include a separate analysis of the spectral efficiency including both information bits per unit bandwidth and the total bits per unit bandwidth.

Subpart H - Private Operational Fixed Microwave Service

§ 101.601 Eligibility

Any person, or any governmental entity or agency, eligible for licensing in a radio service under Parts 80, 87, or 90 or any person proposing to provide communications service to such persons, governmental entities or agencies is eligible to hold a license under this Subpart.

§ 101.603 Permissible Communications.

(a) Except as provided in paragraph (b) of this section, stations in this radio service may transmit communications as follows:

(1) On frequencies below 21,200 MHz, licensees may transmit their own communications, including the transmission of their products and information services, to their customers except that the distribution of video entertainment material to customers is permitted only as indicated in and subparagraph (a)(2) of this section.

(2) In the frequency bands 6425-6525 MHz, 18,142-18,580 MHz and on frequencies above 21,200 MHz, licensees may deliver any of their own products and services to any receiving location;

(3) Licensees may transmit the communications of their parent corporation, or of another subsidiary of the same parent, or their own subsidiary where the party to be served is regularly engaged in any of the activities that constitute the basis for eligibility to use the frequencies assigned;

(4) Licensees may transmit the communications of other parties in accordance with § 101.135;

(5) Licensees may transmit emergency communications unrelated to their activities in accordance with § 101.205;

(6) Licensees may transmit communications on a commercial basis to eligible users, among different premises of a single eligible user, or from one eligible user to another as part of transmissions by Digital Electronic Message Service systems on the frequencies provided for this purpose;

(7) Licensees may transmit program material from one location to another, provided that the frequencies do not serve as the final RF link in the chain of distribution of the program material to broadcast stations;

(b) Stations licensed in this radio service shall not:

(1) Render a common carrier communications service of any kind.

(2) Transmit program material for use in connection with broadcasting, except as provided in paragraphs (a)(2), and (a)(7)) of this section.

(3) Be used to provide the final RF link in the chain of transmission of program material to cable television systems, multipoint distribution systems or master antenna TV systems, except in the frequency bands 6425-6525 and 18,142-18,580 MHz and on frequencies above 21,200 MHz.

§ 101.605 Frequencies.

Frequencies normally available for assignment in this service are set forth with applicable limitations in

the following tables:

(a) 928-960 MHz. Multiple address system (MAS) frequencies are available for the point-to-multipoint transmission of a licensee's products or services, excluding video entertainment material, to a licensee's customer or for its own internal communications. The paired frequencies listed in this section are used for two-way interrogate/ response communications between a master station and remote stations. Each master station operating on these frequencies is required to serve a minimum of four separate active remote stations. Ancillary one-way communications on paired frequencies are permitted on a case-by-case basis. Ancillary communications between interrelated master stations are permitted on a secondary basis. The normal channel bandwidth assigned will be 12.5 kHz. Upon adequate justification, however, channels with bandwidths up to 50 kHz may be authorized. Tables 2, 4, and 6 list frequencies with 25 kHz bandwidth channels. When licensed for a larger bandwidth, the system still is required to use equipment that meets the +/-0.00015 percent tolerance requirement. (See § 101.107). Systems licensed for frequencies in these MAS bands prior to August 1, 1975, may continue to operate as authorized until June 11, 1996, at which time they must comply with current MAS operations based on the 12.5 kHz channelization set forth in this paragraph. Systems licensed between August 1, 1975, and January 1, 1981, inclusive, are required to comply with the grandfathered 25 kHz standard bandwidth and channelization requirements set forth in this paragraph. Systems originally licensed after January 1, 1981, and on or before May 11, 1988, with bandwidths of 25 kHz and above, will be grandfathered indefinitely.

(1) General Access Pool: Frequencies listed in this paragraph are available to all persons eligible under this Part for use in multiple address radio systems. Except as noted, however, the frequencies may be used by eligibles in the Power Radio Service only if the frequencies in paragraph (a)(2) of this Section are exhausted in the particular geographic area. The frequencies are also available for shared use by Part 22 Public Land Mobile Service users if frequencies listed in Sec. 22.501(g) of this chapter are exhausted in the particular geographic area. Applications for use of these frequencies under Part 22 are subject to Part 101 requirements.

Table 1--Paired Frequencies (MHz)

(12.5 kHz bandwidth)

Remote transmit	Master transmit
928.00625	952.00625
928.01875	952.01875
928.03125	952.03125
928.04375	952.04375
928.05625	952.05625
928.06875	952.06875
928.08125	952.08125
928.09375	952.09375
928.10625	952.10625
928.11875	952.11875
928.13125	952.13125
928.14375	952.14375
928.15625	952.15625
928.16875	952.16875
928.18125	952.18125
928.19375	952.19375
928.20625	952.20625

928.21875	.....	952.21875
928.23125	.....	952.23125
928.24375	.....	952.24375
928.25625	.....	952.25625
928.26875	.....	952.26875
928.28125	.....	952.28125
928.29375	.....	952.29375
928.30625	.....	952.30625
928.31875	.....	952.31875
928.33125	.....	952.33125
928.34375	.....	952.34375

Unpaired Frequencies (MHz)/1/

(12.5 kHz bandwidth)

956.25625	956.33125	956.39375
956.26875	956.34375	956.40625
956.28125	956.35625	956.41875
956.29375	956.36875	956.43125
956.30625	956.38125	956.44375
956.31875		

/1/ Available to power eligibles regardless of whether frequencies in the power pool are exhausted.

Table 2--Paired Frequencies (MHz)

(25 kHz bandwidth)

Remote transmit		Master transmit
928.0125	.....	952.0125
928.0375	.....	952.0375
928.0625	.....	952.0625
928.0875	.....	952.0875
928.1125	.....	952.1125
928.1375	.....	952.1375
928.1625	.....	952.1625
928.1875	.....	952.1875
928.2125	.....	952.2125
928.2375	.....	952.2375
928.2625	.....	952.2625
928.2875	.....	952.2875
928.3125	.....	952.3125
928.3375	.....	952.3375

Unpaired frequencies (MHz)/1/

(25 kHz bandwidth)

956.2625	956.3375	956.4125
956.2875	956.3625	956.4375
956.3125	956.3875	

/1/Available to power eligibles regardless of whether frequencies in the power pool are exhausted.

(2) Power Pool: Frequencies listed in this paragraph are available to persons eligible under Sec. 90.63 of this chapter for licensing in the Power Radio Service for use in multiple address radio systems. After January 1, 1992, the frequencies are also available for use by general access pool users and Part 22 Public Land Mobile Service users (Sec. 22.501(g) of this chapter) provided frequencies listed in their respective pools are exhausted in the particular geographic area. Applications for use of these frequencies under Part 22 of this chapter are subject to Part 101 of this chapter requirements.

Table 3—Paired Frequencies (MHz)

(12.5 kHz bandwidth)

Remote transmit	Master transmit
928.35625	952.35625
928.36875	952.36875
928.38125	952.38125
928.39375	952.39375
928.40625	952.40625
928.41875	952.41875
928.43125	952.43125
928.44375	952.44375
928.45625	952.45625
928.46875	952.46875
928.48125	952.48125
928.49375	952.49375
928.50625	952.50625
928.51875	952.51875
928.53125	952.53125
928.54375	952.54375
928.55625	952.55625
928.56875	952.56875
928.58125	952.58125
928.59375	952.59375
928.60625	952.60625
928.61875	952.61875
928.63125	952.63125
928.64375	952.64375
928.65625	952.65625
928.66875	952.66875

928.68125	952.68125
928.69375	952.69375
928.70625	952.70625
928.71875	952.71875
928.73125	952.73125
928.74375	952.74375
928.75625	952.75625
928.76875	952.76875
928.78125	952.78125
928.79375	952.79375
928.80625	952.80625
928.81875	952.81875
928.83125	952.83125
928.84375	952.84375

Table 4—Paired Frequencies (MHz)

(25 kHz bandwidth)

Remote transmit	Master transmit
928.3625	952.3625
928.3875	952.3875
928.4125	952.4125
928.4375	952.4375
928.4625	952.4625
928.4875	952.4875
928.5125	952.5125
928.5375	952.5375
928.5625	952.5625
928.5875	952.5875
928.6125	952.6125
928.6375	952.6375
928.6625	952.6625
928.6875	952.6875
928.7125	952.7125
928.7375	952.7375
928.7625	952.7625
928.7875	952.7875
928.8125	952.8125
928.8375	952.8375

(3) Frequencies listed in this paragraph are available for shared use by general access pool users for multiple address operations if frequencies listed in paragraph (a)(1) of this section are exhausted in the particular geographic area. The frequencies are also available to eligibles in the power pool provided there are no other frequencies available for the type of operation contemplated. The frequencies in this pool may be assigned for paired or unpaired operation. If paired, the corresponding lower frequency is for remote unit use. Applications for these frequencies are subject to the conditions outlined in Sec. 22.27 of this chapter.

Table 5—Public Mobile Service Category Frequencies (MHz)

(12.5 kHz bandwidth)

Remote transmit	Master transmit
928.85625	959.85625
928.86875	959.86875
928.88125	959.88125
928.89375	959.89375
928.90625	959.90625
928.91875	959.91875
928.93125	959.93125
928.94375	959.94375
928.95625	959.95625
928.96875	959.96875
928.98125	959.98125
928.99375	959.99375

Table 6—Public Mobile Service Category Frequencies (MHz)

(25 kHz bandwidth)

Remote transmit	Master transmit
928.8625	959.8625
928.8875	959.8875
928.9125	959.9125
928.9375	959.9375
928.9625	959.9625
928.9875	959.9875

(4) Frequencies listed in this paragraph are shared with stations in the Public Land Mobile Service (Part 22).

Table 7—Paired Frequencies

(12.5 kHz bandwidth)

Remote transmit	Master transmit
932.00625	941.00625
932.01875	941.01875
932.03125	941.03125
932.04375	941.04375
932.05625	941.05625
932.06875	941.06875
932.08125	941.08125

932.09375	941.09375
932.10625	941.10625
932.11875	941.11875
932.13125	941.13125
932.14375	941.14375
932.15625	941.15625
932.16875	941.16875
932.18125	941.18125
932.19375	941.19375
932.20625	941.20625
932.21875	941.21875
932.23125	941.23125
932.24375	941.24375
932.25625	941.25625
932.26875	941.26875
932.28125	941.28125
932.29375	941.29375
932.30625	941.30625
932.31875	941.31875
932.33125	941.33125
932.34375	941.34375
932.35625	941.35625
932.36875	941.36875
932.38125	941.38125
932.39375	941.39375
932.40625	941.40625
932.41875	941.41875
932.43125	941.43125
932.44375	941.44375
932.45625	941.45625
932.46875	941.46875
932.48125	941.48125
932.49375	941.49375

(5) Equivalent power and antenna heights for multiple address master stations:

Antenna height (AAT) in meters(feet)	Maximum effective radiated power	
	Watts	dBm
Above 305 (1,000)	200	53
Above 274 (900) to 305 (1,000)	250	54
Above 244 (800) to 274 (900)	315	55
Above 213 (700) to 244 (800)	400	56
Above 182 (600) to 213 (700)	500	57
Above 152.5 (500) to 182 (600)	630	58
152.5 (500) and below	1,000	60

For mobile operations the maximum ERP is 25 watts (44 dBm)

(6) Fixed point-to-point frequencies.

Table 8—Paired Frequencies

(25 kHz bandwidth)

Transmit (or receive)	Receive (or transmit)
932.5125	941.5125
932.5375	941.5375
932.5625	941.5625
932.5875	941.5875
932.6125	941.6125
932.6375	941.6375
932.6625	941.6625
934.8375	943.8375
934.8625	943.8625
934.8875	943.8875
934.9125	943.9125
934.9375	943.9375
934.9625	943.9625
934.9875	943.9875

Table 9—Paired Frequencies

(50 kHz bandwidth)

Transmit (receive) (MHz)	(MHz)	Receive (transmit)
932.70		941.70
932.75		941.75
934.80		943.80
956.65		953.05
956.75		953.15
956.85		953.25
956.95		953.35
957.05		953.45
957.25		953.65
957.35		953.75
957.45		953.85
957.65		954.05
957.75		954.15
957.85		954.25
958.05		954.45
958.15		954.55
958.25		954.65
958.45		954.85
958.55		954.95

958.65	955.05
958.85	955.25
958.95	955.35
959.05	955.45
959.25	955.65
959.35	955.75
959.45	955.85
959.55	955.95
959.65	956.05

Table 10—Paired Frequencies

(100 kHz bandwidth)

Transmit (receive) (MHz)	Receive (transmit) (MHz)
932.8250	941.8250
932.9250	941.9250
933.0250	942.0250
934.5250	943.5250
934.6250	943.6250
934.725	943.7250
956.6	953.0
956.7	953.1
956.8	953.2
956.9	953.3
957.0	953.4
957.1	953.5
957.2	953.6
957.3	953.7
957.4	953.8
957.5	953.9
957.6	954.0
957.7	954.1
957.8	954.2
957.9	954.3
958.0	954.4
958.1	954.5
958.2	954.6
958.3	954.7
958.4	954.8
958.5	954.9
958.6	955.0
958.7	955.1
958.8	955.2
958.9	955.3
959.0	955.4
959.1	955.5
959.2	955.6

959.3	955.7
959.4	955.8
959.5	955.9
959.6	956.0
959.7	956.1

Table 11—Paired Frequencies

(200 kHz bandwidth)

Transmit (receive) (MHz)	Receive (transmit) (MHz)
933.1750	942.1750
933.3750	942.3750
933.5750	942.5750
933.7750	942.7750
933.9750	942.9750
934.1750	943.1750
934.3750	943.3750
957.15	953.55
957.55	953.95
957.95	954.35
958.35	954.75
958.75	955.15
959.15	955.55

(b) 1850-1990 MHz.

(1) 10 MHz maximum bandwidth.

Paired Frequencies

Transmit (or receive)	Receive (or transmit)
1855	1935
1865	1945
1875	1955
1885	1965
1895	1975
1905	1985

Unpaired Frequencies

/1/ 1915
/1/ 1925

/1/ Available for systems employing one-way transmission.

(2) 5 MHz maximum bandwidth.

Paired Frequencies

Transmit (or receive)	Receive (or transmit)
1860	1940
1870	1950
1880	1960
1890	1970
1900	1980

(c) 2130-2150 MHz; 2180-2200 MHz; 800 kHz maximum bandwidth, unless noted.

Paired Frequencies

2130-2150 MHz Transmit (or receive)	2180-2200 MHz Receive (or transmit)
2130.8	2180.8
2131.6	2181.6 /1/
2132.4	2182.4
2133.2	2183.2 /1/
2134.0	2184.0
2134.8	2184.8 /1/
2135.6	2185.6
2136.4	2186.4 /1/
2137.2	2187.2
2138.0	2188.0 /1/
2138.8	2188.8
2139.6	2189.6 /1/
2140.4	2190.4
2141.2	2191.2 /1/
2142.0	2192.0
2142.8	2192.8 /1/
2143.6	2193.6
2144.4	2194.4 /1/
2145.2	2195.2
2146.0	2196.0 /1/
2146.8	2196.8
2147.6	2197.6 /1/
2148.4	2198.4
2149.2	2199.2

/1/ Consideration will be given on a case-by-case basis to assigning these frequency pairs to systems

employing 1600 kHz bandwidth transmissions.

(d) 2150-2160 MHz: Specific frequency of operation to be set forth in authorization. Omnidirectional transmission only may be authorized, subject to providing protection from harmful interference to previously authorized stations in this service and in other services sharing this band.

(e) 2450-2500 MHz:

(1) This band is shared with other communications services and is not subject to protection from interference from industrial, scientific, and medical devices operating on 2450 MHz.

(2) Stations licensed in this band under this part prior to (effective date of rules) are grandfathered and may continue their authorized operations. Stations licensed in the 2483.5-2500 MHz portion of the band as of July 25, 1985, or on a subsequent date as a result of submitting an application on or before July 25, 1985, are grandfathered, and may continue operations, subject only to license renewal, on a co-primary basis with the Radiodetermination Satellite Service.

(3) 625 KHz bandwidth channels. The normal bandwidth authorized will be 625 kHz. Upon adequate justification, additional contiguous channels may be authorized to provide up to a 2500 kHz bandwidth.

Paired Frequencies (MHZ)

Transmit (or receive)	Receive (or transmit)
2450.3125	2467.5625
2450.9375	2468.1875
2451.5625	2468.8125
2452.1875	2469.4375
2452.8125	2470.0625
2453.4375	2470.6875
2454.0625	2471.3125
2454.6875	2471.9375
2455.3125	2472.5625
2455.9375	2473.1875
2456.5625	2473.8125
2457.1875	2474.4375
2457.8125	2475.0625
2458.4375	2475.6875
2459.0625	2476.3125
2459.6875	2476.9375
2460.3125	2477.5625
2460.9375	2478.1875
2461.5625	2478.8125
2462.1875	2479.4375
2462.8125	2480.0625
2463.4375	2480.6875
2464.0625	2481.3125
2464.6875	2481.9375
2465.3125	2482.5625

2465.9375 2483.1875

The 2466.25-2467.25 MHz portion of this band is an unchanneled band between paired transmit and receive frequencies. Use of frequencies in this band with up to 1 MHz authorized bandwidth will be considered on a case-by-case basis and will be subject to the technical standards for the 2450-2500 MHz band as outlined in this part. Authorization will be made on a secondary basis only.

(f) 2500-2690 MHz: Operational-fixed stations may be authorized on the following frequencies:

Frequencies (MHz)

- 2686.9375
- 2687.9375
- 2688.5625
- 2688.6875
- 2688.9375
- 2689.5625
- 2689.6875

Operational-Fixed stations authorized in this band as of July 16, 1971, which do not comply with the provisions of this part may continue to operate on the frequencies assigned on a coequal basis with other stations operating in accordance with the Table of Frequency allocations. Requests for subsequent license renewals or modifications for such stations will be considered. However, expansion of systems comprised of such stations will not be permitted, except pursuant to the provisions of this part. No new licenses will be issued under this part until specific operating parameters are established for this band.

(g) 3,700 to 4,200 MHz. 20 MHz maximum authorized bandwidth. 20 MHz bandwidth channels:

Transmit (receive) (MHz)	Receive (transmit) (MHz)
3710	3750
3730	3770
3790	3830
3810	3850
3870	3910
3890	3930
3950	3990
3970	4010
4030	4070
4050	4090
4110	4150
4130	4170
n/a	4190 /1/

/1/ This frequency may be assigned for unpaired use.

(h) 5,925 to 6,425 MHz. 30 MHz authorized bandwidth.

(1) 400 kHz bandwidth channels:

Transmit (receive) (MHz)	Receive (transmit) (MHz)
5925.225	6177.100
5925.625	6177.500
5926.050	6177.925
5926.450	6178.325
5926.875	6178.750
5927.275	6179.150
5927.725	6179.600
5928.125	6180.000
5928.550	6180.425
5928.950	6180.825
5929.375	6181.250
5929.775	6181.650
6168.350	6420.225
6168.750	6420.625
6169.175	6421.050
6169.575	6421.450
6170.000	6421.875
6170.400	6422.275
6170.850	6422.725
6171.250	6423.125
6171.675	6423.550
6172.075	6423.950
6172.500	6424.375
6172.900	6424.775

(2) 800 kHz bandwidth channels:

Transmit (receive) (MHz)	Receive (transmit) (MHz)
5925.425	6177.300
5926.250	6178.125
5927.075	6178.950
5927.925	6179.800
5928.750	6180.625
5929.575	6181.450
6168.550	6420.425
6169.375	6421.250
6170.200	6422.075
6171.050	6422.925
6171.875	6423.750
6172.700	6424.575

(3) 1.25 MHz bandwidth channels:

Transmit	Receive
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(receive) (MHz)	(MHz)	(transmit)
5925.625	6177.500
5926.875	6178.750
5928.125	6180.000
5929.375	6181.250
6108.893	6360.933
6110.128	6362.168
6111.364	6363.404
6112.599	6364.639
6113.834	6365.874
6115.070	6367.110
6116.305	6368.345
6117.541	6369.581
6118.776	6370.816
6120.011	6372.051
6121.247	6373.287
6122.482	6374.522
6123.718	6375.758
6124.953	6376.993
6126.189	6378.229
6127.424	6379.464
6128.659	6380.699
6129.895	6381.935
6131.130	6383.170
6132.366	6384.406
6133.601	6385.641
6134.836	6386.876
6136.072	6388.112
6137.307	6389.347
6138.543	6390.583
6139.778	6391.818
6141.041	6393.054
6142.249	6394.289
6143.484	6395.524
6144.720	6396.760
6145.955	6397.995
6147.191	6399.231
6148.426	6400.466
6149.661	6401.701
6150.897	6402.937
6152.132	6404.172
6153.368	6405.408
6154.603	6406.643
6155.839	6407.879
6157.074	6409.114
6158.309	6410.349
6159.545	6411.585
6160.780	6412.820
6162.016	6414.056
6163.251	6415.291

6164.486	.....	6416.526
6165.722	.....	6417.762
6166.957	.....	6418.997
6168.750	.....	6420.625
6170.000	.....	6421.875
6171.250	.....	6423.125
6172.500	.....	6424.375
6173.750 /1/	.....	n/a
6175.000 /1/	.....	n/a
6176.250 /1/	.....	n/a

/1/ These frequencies may be assigned for unpaired use.

(4) 2.5 MHz bandwidth channels:

Transmit (receive) (MHz)		Receive (transmit) (MHz)
5926.250	.....	6178.125
5928.750	.....	6180.625
6109.510	.....	6361.550
6111.981	.....	6364.021
6114.452	.....	6366.492
6116.923	.....	6368.963
6119.394	.....	6371.434
6121.865	.....	6373.905
6124.335	.....	6376.375
6126.806	.....	6378.846
6129.277	.....	6381.317
6131.748	.....	6383.788
6134.219	.....	6386.259
6136.690	.....	6388.730
6139.160	.....	6391.200
6141.631	.....	6393.671
6144.102	.....	6396.142
6146.573	.....	6398.613
6149.044	.....	6401.084
6151.515	.....	6403.555
6153.985	.....	6406.025
6156.456	.....	6408.496
6158.927	.....	6410.967
6161.398	.....	6413.438
6163.869	.....	6415.909
6166.340	.....	6418.380
6169.375	.....	6421.250
6171.875	.....	6423.750
6175.625 /1/	.....	n/a

/1/ This frequency may be assigned for unpaired use.

(5) 3.75 MHz bandwidth channels:

Transmit (receive) (MHz)	Receive (transmit) (MHz)
6111.364	6363.404
6116.305	6368.345
6121.247	6373.287
6126.189	6378.229
6131.130	6383.170
6136.072	6388.112
6141.014	6393.054
6145.955	6397.995
6150.897	6402.937
6155.839	6407.879
6160.780	6412.820
6165.722	6417.762
6175.000 /1/	n/a

/1/ This frequency may be assigned for unpaired use.

(6) 5 MHz bandwidth channels:

Transmit (receive) (MHz)	Receive (transmit) (MHz)
6110.75	6362.79
6115.69	6367.73
6120.63	6372.67
6125.57	6377.61
6130.51	6382.55
6135.45	6387.49
6140.40	6392.44
6145.34	6397.38
6150.28	6402.32
6155.22	6407.26
6160.16	6412.20
6165.10	6417.14

(7) 10 MHz bandwidth channels:

Transmit (receive) (MHz)	Receive (transmit) (MHz)
5935.32	6187.36
5945.20	6197.24
5955.08	6207.12
5964.97	6217.01
5974.85	6226.89
5984.73	6236.77

5994.62	.....	6246.66
6004.50	.....	6256.54
6014.38	.....	6266.42
6024.27	.....	6276.31
6034.15	.....	6286.19
6044.03	.....	6296.07
6053.92	.....	6305.96
6063.80	.....	6315.84
6073.68	.....	6325.72
6083.57	.....	6335.61
6093.45	.....	6345.49
6103.33	.....	6355.37
6113.22 /1/	.....	6365.26 /1/
6123.10 /1/	.....	6375.14 /1/
6132.98 /1/	.....	6385.02 /1/
6142.87 /1/	.....	6394.91 /1/
6152.75 /1/	.....	6404.79 /1/
6162.63 /1/	.....	6414.67 /1/

/1/ Alternate channels. These channels are set aside for narrow bandwidth systems and should be used only if all other channels are blocked.

(8) 30 MHz bandwidth channels:

Transmit (receive) (MHz)		Receive (transmit) (MHz)
5945.20	.....	6197.24
5974.85	.....	6226.89
6004.50	.....	6256.54
6034.15	.....	6286.19
6063.80	.....	6315.84
6093.45	.....	6345.49
6123.10 /1/	.....	6375.14 /1/
6152.75 /1/	.....	6404.79 /1/

/1/ Alternate channels. These channels are set aside for narrow bandwidth systems and should be used only if all other channels are blocked.

(i) 6,525 to 6,875 MHz. 10 MHz authorized bandwidth.

(1) 400 kHz bandwidth channels:

Transmit (receive) (MHz)		Receive (transmit) (MHz)
6525.225	.....	6870.225
6525.625	.....	6870.625
6526.050	.....	6871.050
6526.450	.....	6871.450

6526.875	.....	6871.875
6527.275	.....	6872.275
6527.725	.....	6872.725
6528.125	.....	6873.125
6528.550	.....	6873.550
6528.950	.....	6873.950
6529.375	.....	6874.375
6529.775	.....	6874.775

(2) 800 kHz bandwidth channels:

Transmit (receive) (MHz)		Receive (transmit) (MHz)
6525.425	.....	6870.425
6526.250	.....	6871.250
6527.075	.....	6872.075
6527.925	.....	6872.925
6528.750	.....	6873.750
6529.575	.....	6874.575

(3) 1.25 MHz bandwidth channels:

Transmit (receive) (MHz)		Receive (transmit) (MHz)
6525.625	.....	6870.625
6526.875	.....	6871.875
6528.125	.....	6873.125
6529.375	.....	6874.375
6540.625 /1/	.....	6718.125 /1/
6541.875 /1/	.....	6719.375 /1/
6543.126 /1/	.....	6713.125 /1/
6544.375 /1/	.....	6714.375 /1/
6545.625 /1/	.....	6715.625 /1/
6546.875 /1/	.....	6716.875 /1/
6548.125	.....	6728.125
6549.375	.....	6729.375
6550.625	.....	6730.625
6551.875	.....	6731.875
6553.125 /1/	.....	6723.125 /1/
6554.375 /1/	.....	6724.375 /1/
6555.625 /1/	.....	6725.625 /1/
6556.875 /1/	.....	6726.875 /1/
6558.125	.....	6738.125
6559.375	.....	6739.375
6560.625	.....	6740.625
6561.875	.....	6741.875
6563.125	.....	6733.125
6564.375	.....	6734.375

6565.625	6735.625
6566.875	6736.875
6568.125 /1/	6720.625 /1/
6569.375 /1/	6721.875 /1/
6580.625 /1/	6868.125 /1/
6581.875 /1/	6869.375 /1/
6583.125	6743.125
6584.375	6744.375
6585.625	6745.625
6586.875	6746.875
6588.125	6748.125
6589.375	6749.375
6590.625	6750.625
6591.875	6751.875
6593.125	6753.125
6594.375	6754.375
6595.625	6755.625
6596.875	6756.875
6598.125	6758.125
6599.375	6759.375
6600.625	6760.625
6601.875	6761.875
6603.125	6763.125
6604.375	6764.375
6605.625	6765.625
6606.875	6766.875
6608.125	6768.125
6609.375	6769.375
6610.625	6770.625
6611.875	6771.875
6713.125	6773.125
6614.375	6774.375
6615.625	6775.625
6616.875	6776.875
6618.125	6778.125
6619.375	6779.375
6620.625	6780.625
6621.875	6781.875
6623.125	6783.125
6624.375	6784.375
6625.625	6785.625
6626.875	6786.875
6628.125	6788.125
6629.375	6789.375
6630.625	6790.625
6631.875	6791.875
6633.125	6793.125
6634.375	6794.375
6635.625	6795.625
6636.875	6796.875
6638.125	6798.125
6639.375	6799.375

6640.625	.....	6800.625
6641.875	.....	6801.875
6643.125	.....	6803.125
6644.375	.....	6804.375
6645.625	.....	6805.625
6646.875	.....	6806.875
6648.125	.....	6808.125
6649.375	.....	6809.375
6650.625	.....	6810.625
6651.875	.....	6811.875
6653.125	.....	6813.125
6654.375	.....	6814.375
6655.625	.....	6815.625
6656.875	.....	6816.875
6658.125	.....	6818.125
6659.375	.....	6819.375
6660.625	.....	6820.625
6661.875	.....	6821.875
6663.125	.....	6823.125
6664.375	.....	6824.375
6665.625	.....	6825.625
6666.875	.....	6826.875
6668.125	.....	6828.125
6669.375	.....	6829.375
6670.625	.....	6830.625
6671.875	.....	6831.875
6673.125	.....	6833.125
6674.375	.....	6834.375
6675.625	.....	6835.625
6676.875	.....	6836.875
6678.125	.....	6838.125
6679.375	.....	6839.375
6680.625	.....	6840.625
6681.875	.....	6841.875
6683.125	.....	6843.125
6684.375	.....	6844.375
6685.625	.....	6845.625
6686.875	.....	6846.875
6688.125	.....	6848.125
6689.375	.....	6849.375
6690.625	.....	6850.625
6691.875	.....	6851.875
6693.125	.....	6853.125
6694.375	.....	6854.375
6695.625	.....	6855.625
6696.875	.....	6856.875
6698.125	.....	6858.125
6699.375	.....	6859.375
6700.625	.....	6860.625
6701.875	.....	6861.875
6703.125	.....	6863.125
6704.375	.....	6864.375

6705.625	.....	6865.625
6706.875	.....	6866.875
6708.125 /1/	.....	6710.625 /1/
6709.375 /1/	.....	6711.875 /1/

/1/ These frequencies may be assigned for unpaired use.

(4) 2.5 MHz bandwidth channels:

Transmit (receive) (MHz)		Receive (transmit) (MHz)
6526.25	.....	6871.25
6528.75	.....	6873.75
6541.25 /1/	.....	6718.75 /1/
6543.75 /1/	.....	6713.75 /1/
6546.25 /1/	.....	6716.25 /1/
6548.75	.....	6728.75
6551.25	.....	6731.25
6553.75 /1/	.....	6723.75 /1/
6556.25 /1/	.....	6726.25 /1/
6558.75	.....	6738.75
6561.25	.....	6741.25
6563.75	.....	6733.75
6566.25	.....	6736.25
6568.75 /1/	.....	6721.25 /1/
6581.25 /1/	.....	6868.75 /1/
6583.75	.....	6743.75
6586.25	.....	6746.25
6588.75	.....	6748.75
6591.25	.....	6751.25
6593.75	.....	6753.75
6596.25	.....	6756.25
6598.75	.....	6758.75
6601.25	.....	6761.25
6603.75	.....	6763.75
6606.25	.....	6766.25
6608.75	.....	6768.75
6611.25	.....	6771.25
6613.75	.....	6773.75
6616.25	.....	6776.25
6618.75	.....	6778.75
6621.25	.....	6781.25
6623.75	.....	6783.75
6626.25	.....	6786.25
6628.75	.....	6788.75
6631.25	.....	6791.25
6633.75	.....	6793.75
6636.25	.....	6796.25
6638.75	.....	6798.75
6641.25	.....	6801.25

6643.75	6803.75
6646.25	6806.25
6648.75	6808.75
6651.25	6811.25
6653.75	6813.75
6656.25	6816.25
6658.75	6818.75
6661.25	6821.25
6663.75	6823.75
6666.25	6826.25
6668.75	6828.75
6671.25	6831.25
6673.75	6833.75
6676.25	6836.25
6678.75	6838.75
6681.25	6841.25
6683.75	6843.75
6686.25	6846.25
6688.75	6848.75
6691.25	6851.25
6693.75	6853.75
6696.25	6856.25
6698.75	6858.75
6701.25	6861.25
6703.75	6863.75
6706.25	6866.25
6708.75 /1/	6711.25 /1/

/1/ These frequencies may be assigned for unpaired use.

(5) 3.75 MHz bandwidth channels:

Transmit (receive) (MHz)	Receive (transmit) (MHz)
6545.625 /1/	6715.625 /1/
6550.625	6730.625
6555.625 /1/	6725.625 /1/
6560.625	6740.625
6565.625	6735.625
6585.625	6745.625
6590.625	6750.625
6595.625	6755.625
6600.625	6760.625
6605.625	6765.625
6610.625	6770.625
6615.625	6775.625
6620.625	6780.625
6625.625	6785.625
6630.625	6790.625
6635.625	6795.625

6640.625	.....	6800.625
6645.625	.....	6805.625
6650.625	.....	6810.625
6655.625	.....	6815.625
6660.625	.....	6820.625
6665.625	.....	6825.625
6670.625	.....	6830.625
6675.625	.....	6835.625
6680.625	.....	6840.625
6685.625	.....	6845.625
6690.625	.....	6850.625
6695.625	.....	6855.625
6700.625	.....	6860.625
6705.625	.....	6865.625
6710.625 /1/	.....	6720.625 /1/

/1/ These frequencies may be assigned for unpaired use.

(6) 5 MHz bandwidth channels:

Transmit (receive) (MHz)	Receive (transmit) (MHz)
6545 /1/	..... 6715 /1/
6550	..... 6730
6555 /1/	..... 6725 /1
6560	..... 6740
6565	..... 6735
6585	..... 6745
6590	..... 6750
6595	..... 6755
6600	..... 6760
6605	..... 6765
6610	..... 6770
6615	..... 6775
6620	..... 6780
6625	..... 6785
6630	..... 6790
6635	..... 6795
6640	..... 6800
6645	..... 6805
6650	..... 6810
6655	..... 6815
6660	..... 6820
6665	..... 6825
6670	..... 6830
6675	..... 6835
6680	..... 6840
6685	..... 6845
6690	..... 6850
6695	..... 6855